

Daily GLOWBUGS

Digest: V1 #16

via AB4EL Web Digests @ SunSITE

Purpose: building and operating vacuum tube-based QRP rigs

[AB4EL Ham Radio Homepage @ SunSITE](#)

%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%%

Subject: glowbugs V1 #16

glowbugs

Saturday, April 26 1997

Volume 01 : Number 016

Date: Fri, 25 Apr 1997 14:16:39 -0500 (CDT)

From: Dan Kerl <dlkerl@ro.com>

Subject: Re: preselector for regen rx

Would it be possible to use a grounded-grid stage as the front-end of a regen? It seems like this would provide excellent decoupling from the antenna without hosing the noise figure too much.

Dan Kerl
dlkerl@ro.com

Date: Fri, 25 Apr 1997 17:28:01 -0800

From: herr@ridgecrest.ca.us (Michael Herr)

Subject: Re: preselector for regen rx

>> My vote is for the preselector. While a second stage of audio might make
>> gain sense, the preselector will help isolate the regen from the antenna,
>> reducing the unintentional radiation of rf and reduce the coupling of the
>> antenna to the detector, ie gets rid of the swinging antenna syndrom.
>> 73
>> Mike WA6A^A
>
>I see what you are saying, but I never have that problem if I have designed
>the input section of the detector correctly. The antenna swinging syndrome
>is a dead giveaway of overcoupled detectors. Also, when sufficiently loosely
>coupled to prevent the antenna swinging syndrome, radiation is nil. I can
>...
>73/ZUT DE NA4G/Bob UP

Bob,

I think you right! I initially worked a little on the coupling to

solve the swinging antenna problem but really didn't take it to it's end.
I think I'll fuss with it again, really aggressively this time. It just
takes a while to sink in.

73

Mike WA6ARA

Date: Fri, 25 Apr 1997 17:47:07 -0800

From: herr@ridgecrest.ca.us (Michael Herr)

Subject: Re: preselector for regen rx

>Would it be possible to use a grounded-grid stage as the front-end
>of a regen? It seems like this would provide excellent decoupling
>from the antenna without hosing the noise figure too much.

>

>

Dan Kerl

>

dlkerl@ro.com

I built one, got it to work but wasn't all that happy with it. It did the
decoupling and noise was bad, but did cut into the selectivity of the set.

73

Mike WA6ARA

Date: Sat, 26 Apr 1997 12:27:45 +1000

From: Murray Kelly <mkelly@faraday.dialix.com.au>

Subject: Re: Rebuilding an old glowbug

6gw8 pins-

1 - t grid

2 - t cathode

3 - p screen

4/5 - fil (6.3 x 0.56)

6 - p plate

7 - p cathode/supp

8 - p grid

9 - t plate

EricNess@aol.com wrote:

> 6GW8. Could somebody send me the pinouts of this one?

```
*****
*      Murray Kelly vk4aok      mkelly@faraday.dialix.com.au      *
*      29 Molonga Ter. / Graceville/ QLD. 4075/ Australia        *
*                               ph/fax Intl+ 61 7 3379 3307          *
*****
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Date: Fri, 25 Apr 1997 22:18:01 PST

From: dwink@juno.com (Daniel C Winkler)

Subject: Superhet- regen (long)

Hello gang,

I am a lurker. Mostly do sandy-state stuff but have strong affection for hollow state.

I have long been interested in building a regen, but the problem of the audio image (like a DC receiver, which it is), has dissuaded me. The current thread reminded me...

Ten years ago I ran across an article in CQ for October, 1961, page 56: "A 40 Meter C. W. Station For Novice Or Mobile", by Fred Howell, W6MTY. He is still licensed (renewed in '95).

The receiver in his station uses the following:
1/2 12AT7 RF cathode follower T-R switch (he says it's also a broad-band RF amp, but it loses gain!)
6BE6 down-converter to 4.035 MHz
Half-lattice crystal filter, with 22k load (to ground) and 0.5M resistor to grid of 1/2 12AT7 det.
1/2 12AT7 Regen Det., with 2.5mH choke in cathode, 4.035MHz crystal from grid to ground, 10 Hy choke on plate (to 75k regen pot) 0.001uf cap from plate to ground oscillates at abt 25 v
1/2 12AT7 AF amplifier to phones.

He calls this a reflex-pierce detector. He makes good claims for his little receiver, and it makes good sense to me. The picture accompanying the article shows a really *ugly* little duckling, no swan by any stretch of the imagination, but it worked! (Beauty is in the eyes...)

"The layout...is a little cramped...planned for mobile installation. ...keep the detector crystal clear of the chassis. ...For some reason that is not clear, the detector refused to regenerate with the crystal in (a corner inside the chassis), and the outboard mounting...was used with complete success."

He used a 3x5x7 chassis, by the look of it. He has all the components mounted on one 3x7 side (the "top", as he's using the chassis). The 5x7 side is the front, and the above mentioned crystal (and the 2 in the lattice) are hanging off one (3x5) side, while the power connection terminal strip occupies the other. Only a ham would love it. But I have been back to this design repeatedly. Were I quicker at building...

What think Ye, masters of the hollow art?

My own thoughts are:

1. 22k load on crystal lattice is too high for good filtering
2. "Modern" ladder filter could be used; loss is no problem
3. Even at .5M into regen detector, coupling may be too tight, judging from what has just been said on the list. . .
However:
4. with crystal control of the oscillation frequency, and a crystal filter for selectivity, does tight coupling matter?

Could we go for more coupling (= gain) and maybe,
using a pentode output tube, drive a small speaker?
Well, probably need another stage anyway...

I am thinking more of a 1R5 3A5 1S4 kind of line-up.
I understand the 1R5 is noisy: the 1L6 is better but not
readily found (I've looked). Maybe with a 1R5 I need
a low-noise RF amp (T/R switch)?

I thought of running one section of 3A5 as regen IF, and
t'other as BFO w/ xtal., but then its not a "genny", is it?

This would be a nice rig for me, a mix of the old and the
new, a "Glowing Super-Gennie". I could really love a
rig like this.

You see, Gennie (Genevieve) is my wife of 30 years.
...And the glow is not gone.

73, Dan Winkler N7IVR Seattle, WA DWink@Juno.com

PS the transmitter section used 1/2 12AT7 --> 2E26, and NE-2
oscillator for sidetone. Full QSK. Nifty.

Date: Sat, 26 Apr 1997 07:27:59 -0400
From: BEN NOCK <106312.1035@compuserve.com>
Subject: GEAR FS.

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CONTACT BEN ON 106312.1035@compuserve.com

Date: Sat, 26 Apr 1997 19:29:53 +0000
From: "Brian Carling (Radio G3XLQ / AF4K)" <bry@mnsinc.com>
Subject: Re: Rebuilding an old glowbug

Eric - I would love to know about that transmitter!

Is it a homebrew or commercially made one?

There are SEVERAL 6GW8 and 6BM8 transmitter articles and schematics published on the WWW.

You can access them via my web page at:
<http://www.mnsinc.com/bry/hamfiles.htm>

You can get the pin connections that way...

Be aware though that the 6BM8 and 6GW8 are different both in ratings and pin connections.

6GW8 is an ECL86
6BM8 is an ECL82

Cheers to all - Bry, AF4K

On 24 Apr 97 at 20:08, EricNess@aol.com spoke about Rebuilding an old glowbug and said:

> At a recent electronics swap meet, I picked up a poor orphan glowbug
> transmitter for a buck. The transmitter uses a single 6GW8 which I
> imagine is a triode/beam pentode combo. Unfortunately, neither of
> my tube manuals list the 6GW8. Could somebody send me the pinouts
> of this one?

>

> I don't think this poor little glowbug ever worked but it can be
> saved! I have already built a new chassis (the old one didn't fit
> into it's box) and tonight I will start transferring components. By
> Saturday, it will be time to start wiring. Just need that pinout.

>

> 73, Eric WD6DGX

>

*** 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com *
*** See the great ham radio resources at: *
** <http://www.mnsinc.com/bry/> *

End of glowbugs V1 #16

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Created by **Steve Modena, AB4EL**
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